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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/723,864
Filing Date: November 26, 2003
Appellant(s): MURALIDHARAN, GIRSIH K.

Matthew Dooley
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 27 September 2010 appealing from the Office action mailed 29 March 2010.

(1) Real Party Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

Claims 1-18, 20-23, 31-35, and 40-49 are currently pending. Claims 1-18, 20-23, 31-35, and 40-49 are currently under final rejection and, thus, are the subject of this Appeal. Claims 19, 24-30, and 26-29 have been canceled.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office

action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner.

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

20020029285	Collins	5-2001
5119319	Tanenbaum	12-1989
20040138754	Lang et al.	10-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, 5-10, 12-13, 15-17, 20-23, 31-35, 40, 42, and 44-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Collins (US 20020029285 A1).

Consider claim 1. Collins teaches a remote viewing system, comprising: a serving station coupled to a medical diagnostic imaging system for controlling the imaging system and configured to receive image data, the serving station comprising: a processing rate (read as scanner module) configured to modify a scanning rate of the image data;

[Collins, paragraph 0014] … the present invention adapts a processing rate in response to changing network conditions … will process subsequent graphical data …

and an encoder module configured to modify an encoding format of the image data;

[Collins, paragraph 0014] … the encoding technique used while processing the graphical data by the server agent at the first rate can be modified to a second encoding scheme/technique in response to changes in the network conditions that are determined by the server agent …

a served station from which a remote operator may interact with the serving station, the served station being configured to receive modified image data from the serving station via a network;

[Collins, paragraph 0003] From the perspective of the user, the application program seems to be executing locally even though it is actually being executed on a remote server and just being displayed locally.

and a plurality of network sensors in communication with the serving station and configured to provide network performance data to the serving station, wherein the serving station dynamically modifies at least one of the scanning rate and the encoding format based on the network performance data.

[Collins, paragraph 0014] In one embodiment, the present invention adapts a processing rate in response to changing network conditions. In one aspect of the invention, the server agent processes graphical data addressed to the client agent at a first rate. By determining the network conditions of the network that couples the client and server agents, the server agent can adjust its processing rate from the first rate to a second rate in response to a change in the network conditions. The server agent can determine information about the network conditions by transmitting the processed graphical data to the client agent and instructing the client to measure a time differential associated with the transmission or receipt of the graphical data. In this manner, the time differential provides an indicator of the network conditions and the server agent can rationally select the second rate in accordance with this time differential. Similarly, the encoding technique used while processing the graphical data by the server agent at the first rate can be modified to a second encoding scheme/technique in response to changes in the network conditions that are determined by the server agent. The network conditions can be estimated in accordance with the time differential discussed previously. Once the second encoding technique is selected by the server agent, the server agent will process subsequent graphical data using this second encoding technique.

Consider claim 2, as applied to claim 1. Collins discloses a remote viewing system wherein the serving station comprises a monitor for presenting image data to an operator.

[Collins, paragraph 0003] From the perspective of the user, the application program seems to be executing locally even though it is actually being executed on a remote server and just being displayed locally.

Consider claim 3, as applied to claim 2. Collins discloses a remote viewing system wherein the serving station is configured to present an indication associated with the network performance data to the operator.

[Collins, paragraph 0068] As the encoded bitmap 414 is being transmitted, the transmission time can be monitored to determine the performance of the network 140. If the transmission time exceeds a threshold value, the client agent 118 can draw whatever bitmap data has already been stored in its cache 114 and display the remaining portions of the bitmap data either in real-time as it is received in the cache 114 or at predetermined intervals. In this manner, a user of the client will recognize that the client 110 is still operating on the bitmap data and be able to discern that the client 110 is not in a hung or failed/error condition.

Consider claim 5, as applied to claim 3. Collins discloses a remote viewing system wherein the indication comprises a network indicator that relates to the network performance data.

[Collins, paragraph 0014] … the time differential provides an indicator of the network conditions and the server agent can rationally select the second rate in accordance with this time differential …

Consider claim 6, as applied to claim 1. Collins discloses a remote viewing system wherein the serving station is in communication with an imaging system

configured to detect a plurality of signals that are convertible into an image, the imaging system configured to produce the image data.

[Collins, paragraph 0082] The present invention can also be applied to bitmaps that are displayed in an on-screen surface, as well as to bitmaps in an off-screen surface (e.g., that are stored in a video display adapter's memory and/or in a pre-allocated section of the client's volatile memory 114 that will be operated on by a graphics conversion library). Off-screen surfaces are frequently formed by applications, such as Microsoft Word, that write bitmaps to the off-screen surface until the surface is complete, at which time the off-screen surface is displayed on the display screen 128 of the client 110 in final form as an on-screen surface. Therefore, off-screen surfaces frequently provide the source for on-screen surfaces.

Consider claim 7, as applied to claim 1. Collins discloses a remote viewing system wherein the plurality of network sensors exchange a plurality of packets to determine network congestion.

[Collins, paragraph 0014] … the server agent processes graphical data addressed to the client agent at a first rate. By determining the network conditions of the network that couples the client and server agents, the server agent can adjust its processing rate from the first rate to a second rate in response to a change in the network conditions …

Consider claim 8, as applied to claim 1. Collins discloses a remote viewing system wherein the plurality of network sensors exchange a plurality of packets to determine network latency.

[Collins, paragraph 0014] … The server agent can determine information about the network conditions by transmitting the processed graphical data to the client agent and instructing the client to measure a time differential associated with the transmission or receipt of the graphical data …

Consider claim 9, as applied to claim 1. Collins discloses a remote viewing system wherein the network comprises a wide area network.

[Collins, paragraph 0034] … The network 140 can be a local-area network (LAN), a medium-area network (MAN), or a wide area network (WAN) such as the Internet or the World Wide Web …

Consider claim 10, as applied to claim 1. Collins discloses a remote viewing system wherein the network comprises an Internet.

[Collins, paragraph 0034]

Consider claim 12, as applied to claim 1. Collins discloses a remote viewing system wherein the serving station utilizes a remote framebuffer protocol to transmit the modified image data to the served station.

[Collins, paragraph 0072] The invention mitigates this overscroll problem by reducing its frequency of occurrence. More particularly, the invention periodically times selected scroll events at the server 150 (by scrolling the frame buffer) and at the client 110 (via the StopWatch commands discussed above) to compute a moving average estimate of their respective speeds. In this manner, the server agent 160 estimates how long a particular scroll event will take (speed times the number of pixels involved) to process at the server 150 and how long the client 110 is expected to take and if the expected processing time at the client 110 is larger than that of the server 150, the server processing is suspended by the appropriate time differential so as to keep the client 110 and server 150 substantially in step. This approach results in many fewer overscrolls due to the time lag between the client 110 and server 150 as compared to the number of overscrolls occurring when this approach is not implemented.

Consider claim 13, as applied to claim 1. Collins discloses a remote viewing system wherein the served station transmits remote input data to the serving station.

[Collins, paragraph 0003] During execution of the application program, a user of the client views the application output data on the client's display and interacts with the application program via keyboard or mouse inputs. The client user's inputs correspond to requests to the application server to perform certain actions that affect the operation of the application program.

Consider claim 15. Collins discloses a method for adapting screen updates

based on network congestion, the method comprising:

linking a serving station to a served station via a network, the serving station being coupled to a medical diagnostic imaging system for controlling the imaging system and being configured to receive image data,

[Collins, paragraph 0014] … the server agent processes graphical data addressed to the client agent at a first rate …

the served station enabling a remote operator to interact with the serving station, the served station being configured to receive modified image data from the serving station via a network,

[Collins, paragraph 0068] … the invention adapts the server's operation to changing network conditions by determining the relative speed of the network 140. For example, by dynamically assessing the bandwidth of the network 140, the server agent 160 can modify the encoding and compression techniques used to process bitmap data in order to reduce bandwidth requirements when transmitting over a slow network. The invention processes columns of bitmap data from left to right and primes the client cache 114 accordingly. As the encoded bitmap 414 is being transmitted, the transmission time can be monitored to determine the performance of the network 140. If the transmission time exceeds a threshold value, the client agent 118 can draw whatever bitmap data has already been stored in its cache 114 and display the remaining portions of the bitmap data either in real-time as it is received in the cache 114 or at predetermined intervals. In this manner, a user of the client will recognize that the client 110 is still operating on the bitmap data and be able to discern that the client 110 is not in a hung or failed/error condition …

wherein the serving station utilizes a remote framebuffer protocol to transmit the modified image data to the served station;

[Collins, paragraph 0072] The invention mitigates this overscroll problem by reducing its frequency of occurrence. More particularly, the invention periodically times selected scroll events at the server 150 (by scrolling the frame buffer) and at the client 110 (via the StopWatch commands discussed above) to compute a moving average estimate of their respective speeds. In this manner, the server agent 160 estimates how long a particular scroll event will take (speed times the number of pixels involved) to process at

the server 150 and how long the client 110 is expected to take and if the expected processing time at the client 110 is larger than that of the server 150, the server processing is suspended by the appropriate time differential so as to keep the client 110 and server 150 substantially in step. This approach results in many fewer overscrolls due to the time lag between the client 110 and server 150 as compared to the number of overscrolls occurring when this approach is not implemented.

measuring network performance between a serving station and a served station,

[Collins, paragraph 0014] … The server agent can determine information about the network conditions by transmitting the processed graphical data to the client agent and instructing the client to measure a time differential associated with the transmission or receipt of the graphical data …

wherein the serving station provides screen data derived from an imaging system to the served station;

[Collins, paragraph 0014] … the server agent processes graphical data addressed to the client agent at a first rate. By determining the network conditions of the network that couples the client and server agents, the server agent can adjust its processing rate from the first rate to a second rate in response to a change in the network conditions. The server agent can determine information about the network conditions by transmitting the processed graphical data to the client agent and instructing the client to measure a time differential associated with the transmission or receipt of the graphical data …

and adjusting the screen data transmitted to the served station automatically based on the measurement of the network performance, wherein adjusting the screen data comprises modifying a frame buffer scanning algorithm based on the network performance.

[Collins, paragraph 0014]

Consider claim 16, as applied to claim 15. Collins discloses a method wherein measuring network performance comprises transmitting a test packet from the serving station and receiving a response packet from the served station.

[Collins, paragraph 0039] During execution of the application program 158, a server 150 communicates with the client node 110 over a transport mechanism (part of the server agent 160). In one embodiment, the transport mechanism provides multiple virtual channels and one of the virtual channels provides a protocol for transmission of graphical screen data from the server node 150 to the client node 110. The server 150 executes a protocol driver (part of the server agent 160) that intercepts graphical display interface commands (generated by the application program 158 and targeted at the server's operating system 156) and translates them into a protocol packet suitable for transmission over the transport mechanism.

Consider claim 17, as applied to claim 15. Collins discloses a method comprising converting image data from the imaging system into screen data.

[Collins, paragraph 0082]

Consider claim 20, as applied to claim 15. Collins discloses a method comprising transmitting the screen data to the served station from the serving station.

[Collins, paragraph 0014]

Consider claim 21, as applied to claim 15. Collins discloses a method comprising encoding the screen data for transmission to the server station.

[Collins, paragraph 0014]

Consider claim 22, as applied to claim 21. Collins discloses a method wherein adjusting comprises modifying a data transmission algorithm that compresses the screen data based on the network performance.

[Collins, paragraph 0014]

Consider claim 23, as applied to claim 15. Collins discloses a method comprising displaying an indication of the network performance at one of the serving station and the served station based on the measurement of the network performance.

[Collins, paragraphs 0014-0015]

Consider claim 31. Collins discloses a method for adapting screen updates based on network performance, the method comprising:

linking a serving station to a served station via a network, the serving station being coupled to a medical diagnostic imaging system for controlling the imaging system and being configured to receive image data,

[Collins, paragraph 0014]

the served station enabling a remote operator to interact with the serving station, the served station being configured to receive modified image data from the serving station via a network; detecting network performance between a serving station and a served station;

[Collins, paragraph 0068]

comparing the network performance to a specified range;

[Collins, paragraph 0068] As the encoded bitmap 414 is being transmitted, the transmission time can be monitored to determine the performance of the network 140. If the transmission time exceeds a threshold value, the client agent 118 can draw whatever bitmap data has already been stored in its cache 114 and display the remaining portions of the bitmap data either in real-time as it is received in the cache 114 or at predetermined intervals.

and modifying a plurality (client and server) of screen updates dynamically based upon the comparison of the network performance.

[Collins, paragraph 0015] In one embodiment, the invention adapts a processing rate of the server in response to a performance mismatch between the server and the client coupled to the server via the network. In operation, the server agent processes graphical data and determines a first time period associated with such processing. For example, the first time period can be determined by scrolling a frame buffer of the server. The client agent also processes the graphical data and determines a second time period associated with its processing. The server agent then determines the time differential between the first and second time periods and adjusts its processing rate in accordance therewith.

Consider claim 32, as applied to claim 31. Collins discloses a method wherein the network performance corresponds to the latency of a network coupling the serving station and the served station.

[Collins, paragraph 0014]

Consider claim 33, as applied to claim 31. Collins discloses a method wherein dynamically modifying the plurality of screen updates comprises adjusting a frame buffer scanning algorithm based on the network performance.

[Collins, paragraph 0015]

Consider claim 34, as applied to claim 31. Collins discloses a method wherein dynamically modifying the plurality of screen updates comprises adjusting an encoding algorithm based on the network performance.

[Collins, paragraphs 0014-0015]

Consider claim 35, as applied to claim 31. Collins discloses a method comprising encoding the plurality of screen updates for transmission to the served station.

[Collins, paragraph 0015]

Consider claim 40. Collins discloses a system for adapting screen updates based on network performance, the system comprising:

a serving station coupled to a medical diagnostic imaging system for controlling the imaging system and configured to receive image data;

[Collins, paragraph 0014]

a served station from which a remote operator may interact with the serving station, the served station being configured to receive modified image data from the serving station via a network;

[Collins, paragraph 0068]

means for detecting network performance between the serving station and the served station;

[Collins, paragraph 0014]

means for comparing the network performance to a specified range;

[Collins, paragraph 0068]

and means for dynamically modifying a plurality (client and server) of screen updates based upon the comparison of the network performance to the specified range.

[Collins, paragraph 0015]

Consider claim 42. Collins discloses a remote viewing system for a medical imaging system, comprising:

an imaging system configured to detect a plurality of signals that are convertible into an image, the system configured to produce image data;

[Collins, paragraph 0082]

a serving station configured to receive the image data and control the imaging system, the serving station comprising: a scanner module configured to modify a

scanning rate of the image data;

[Collins, paragraph 0014]

and an encoder module configured to modify an encoding format of the image data;

[Collins, paragraph 0014]

a served station configured to receive modified image data from the serving station and to interact with the serving station via a network;

[Collins, paragraph 0068]

and a plurality of network sensors in communication with the serving station and configured to provide network performance data to the serving station, wherein the serving station dynamically modifies at least one of the scanning rate and the encoding format based on the network performance data.

[Collins, paragraph 0014]

Consider claim 44, as applied to claim 42. Collins discloses a remote viewing system wherein the serving station is configured to present an indication associated with the network performance data to an operator.

[Collins, paragraph 0003]

Consider claim 45, as applied to claim 42. Collins discloses a remote viewing system wherein the plurality of network sensors exchange a plurality of packets to determine network performance.

[Collins, paragraph 0014]

Consider claim 46, as applied to claim 42. Collins discloses a remote viewing system wherein the network comprises a wide area network.

[Collins, paragraph 0034]

Consider claim 47, as applied to claim 42. Collins discloses a remote viewing system wherein the plurality of network sensors exchange a plurality of packets to determine network latency.

[Collins, paragraph 0014]

Consider claim 48, as applied to claim 42. Collins discloses a remote viewing system wherein the serving station utilizes a remote framebuffer protocol to transmit the modified image data in the served station.

[Collins, paragraph 0072]

Consider claim 49, as applied to claim 42. Collins discloses a remote viewing system wherein the served station transmits remote input data to the serving station.

[Collins, paragraph 0003]

Claims 4, 14, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins (US 20020029285 A1) in view of Tanenbaum (US 5119319 A).

Consider claim 4, as applied to claim 3. Collins teaches a remote viewing system, comprising: a serving station coupled to a medical diagnostic imaging system for controlling the imaging system and configured to receive image data, the serving station comprising: a processing rate (read as scanner module) configured to modify a scanning rate of the image data; and an encoder module configured to modify an encoding format of the image data; a served station from which a remote operator may

interact with the serving station, the served station being configured to receive modified image data from the serving station via a network; and a plurality of network sensors in communication with the serving station and configured to provide network performance data to the serving station, wherein the serving station dynamically modifies at least one of the scanning rate and the encoding format based on the network performance data.

However, Collins does not explicitly disclose a system or method comprising a bar chart.

Tanenbaum discloses a full duplex video communication system comprising a bar chart.

[Tanenbaum, column 5 lines 49-53] If the local system is in the eraser mode (box 220), it will draw a filled bar having the same color as the background at the current cursor location (box 222); and it will send instructions to the remote terminal(s) to do the same (box 218).

Collins discloses a prior art remote viewing system, comprising: a serving station coupled to a medical diagnostic imaging system for controlling the imaging system and configured to receive image data, the serving station comprising: a processing rate (read as scanner module) configured to modify a scanning rate of the image data; and an encoder module configured to modify an encoding format of the image data; a served station from which a remote operator may interact with the serving station, the served station being configured to receive modified image data from the serving station via a network; and a plurality of network sensors in communication with the serving station and configured to provide network performance data to the serving station, wherein the serving station dynamically modifies at least one of the scanning rate and

the encoding format based on the network performance data upon which the claimed invention can be seen as an improvement.

Tanenbaum teaches a prior art comparable full duplex video communication system comprising a bar chart.

Thus, the manner of enhancing a particular device (full duplex video communication system comprising a bar chart) was made part of the ordinary capabilities of one skilled in the art based upon the teaching of such improvement in Tanenbaum. Accordingly, one of ordinary skill in the art would have been capable of applying this known improvement technique in the same manner to the prior art remote viewing system, comprising: a serving station coupled to a medical diagnostic imaging system for controlling the imaging system and configured to receive image data, the serving station comprising: a processing rate configured to modify a scanning rate of the image data; and an encoder module configured to modify an encoding format of the image data; a served station from which a remote operator may interact with the serving station, the served station being configured to receive modified image data from the serving station via a network; and a plurality of network sensors in communication with the serving station and configured to provide network performance data to the serving station, wherein the serving station dynamically modifies at least one of the scanning rate and the encoding format based on the network performance data of Collins and the results would have been predictable to one of ordinary skill in the art, namely, one skilled in the art would have readily recognized a system and method of adapting graphical data and processing activity to changing network conditions.

Consider claim 14, as applied to claim 1. Collins, as modified by Tanenbaum, discloses a remote viewing system wherein the serving station receives local input data from a local operator via an input device that is coupled to the serving station.

[Tanenbaum, column 9 line 66 – column 10 line 2] Different programs may be used at the different terminals as long as the programs are able to provide the functions of displaying both information input from the local terminal and information input from the remote terminal(s) at the correct places on the display screen.

Consider claim 41. Collins, as modified by Tanenbaum, discloses a system for adapting screen updates based on network congestion, the system comprising:

a serving station coupled to a medical diagnostic imaging system for controlling the imaging system and configured to receive image data,

[Collins, paragraph 0014]

wherein the serving station receives local input data from a local operator via an input device that is coupled to the serving station;

[Tanenbaum, column 9 line 66 – column 10 line 2]

a served station from which a remote operator may interact with the serving station, the served station being configured to receive modified image data from the serving station via a network;

[Collins, paragraph 0068]

means for measuring network performance between the serving station and the served station, wherein the serving station provides screen data derived from an imaging system to the served station; and means for automatically adjusting the screen data transmitted to the served station based on the measurement of the network

performance,

[Collins, paragraph 0005] The invention achieves this reduction in several different ways, for example, by encoding the graphical data into a smaller object, by representing a graphical object with indicia of the object, by increasing the repetitiveness of the data in the protocol stream so that compression algorithms operate more efficiently, by tracking and leveraging the prior transmissions of identical/repetitive graphical objects, by adapting the rate of processing activity or the encoding technique in response to changes in the network performance or in response to performance mismatches between the client and server, and in several other ways described herein.

wherein adjusting the screen data comprises modifying a frame buffer scanning algorithm based on the network performance.

[Collins, paragraph 0015]

Claims 11, 18, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collins (US 20020029285 A1) in view of Lang et al. (US 20040138754 A1).

Consider claim 11, as applied to claim 1. Collins discloses a remote viewing system wherein a serving station receives image data.

However, Collins does not explicitly disclose a medical imaging system.

Lang et al. discloses a system and method of a minimally invasive joint implant with 3-Dimensional geometry matching the articular surfaces.

Collins discloses a prior art system and method of manipulating a compressed video screen comprising a scanner module configured to modify a scanning rate of the image data; an encoder module configured to modify an encoding format of the image data; a served station from which a remote operator may interact with the serving station, the served station being configured to receive modified image data from the

serving station via a network; and a network sensor in communication with the serving station and configured to provide network performance data to the serving station, wherein the serving station dynamically modifies at least one of the scanning rate and the encoding format based on the network performance data; and a system and method for adjusting the traffic carried by a network comprising a plurality of network sensors upon which the claimed invention can be seen as an improvement.

Lang et al. teaches a prior art system and method of a minimally invasive joint implant with 3-Dimensional geometry matching the articular surfaces.

Thus, the manner of enhancing a particular device (system and method of a minimally invasive joint implant with 3-Dimensional geometry matching the articular surfaces) was made part of the ordinary capabilities of one skilled in the art based upon the teaching of such improvement in Lang et al. Accordingly, one of ordinary skill in the art would have been capable of applying this known improvement technique in the same manner to the prior art of Collins and the results would have been predictable to one of ordinary skill in the art, namely, one skilled in the art would have readily recognized a method and apparatus for dynamically adapting medical image updates based on network performance.

Consider claim 18, as applied to claim 15. Collins, as modified by Lang et al., discloses a method wherein the imaging system comprises one of a computed tomography imaging system, a magnetic resonance imaging system, a tomosynthesis system, a positron emission tomography imaging system, and a X- ray imaging system.

[Lang et al., paragraph 0075] As will be appreciated by those of skill in the art, the practice of the present invention employs, unless otherwise indicated, conventional

methods of x-ray imaging and processing, x-ray tomosynthesis, ultrasound including A-scan, B-scan and C-scan, computed tomography (CT scan), magnetic resonance imaging (MRI), optical coherence tomography, single photon emission tomography (SPECT) and positron emission tomography (PET) within the skill of the art. Such techniques are explained fully in the literature and need not be described herein.

Consider claim 43, as applied to claim 42. Collins, as modified by Lang et al., discloses a remote viewing system wherein the imaging system comprises one of a computed tomography imaging system, a magnetic resonance imaging system, a tomosynthesis system, a positron emission tomography imaging system, and an X-ray imaging system.

[Lang et al., paragraph 0075]

(10) Response to Argument

<u>Applicant argues that Collins fails to teach a serving station coupled to a medical diagnostic imaging system for controlling the imaging system; a scanner module configured to modify a scanning rate of the image data; and network sensors in communication with the serving station as in Claim 1.</u>

Examiner respectfully disagrees. Collins discloses a system and method of adapting graphical data, interpreted to read on ***image data***, and processing activity to changing network conditions wherein a server agent processes graphical data addressed to the client agent at a first rate. By determining the network conditions of the network that couples the client and server agents, read as the Claimed ***network sensors in communication with a serving station***, the server agent, read as the Claimed ***scanner module***, can adjust its processing rate, interpreted as the Claimed

scanning rate, from the first rate to a second rate in response to a change in the network conditions, interpreted as the Claimed ***modified scanning rate***.

Applicant argues that Collins fails to teach modifying a frame buffer scanning algorithm based on the network performance; and screen data derived from an imaging system as in Claim 15.

Examiner respectfully disagrees. Paragraph 0072 of the Collins reference clearly discloses a periodic timer of selected events at a server by scrolling a frame buffer, and at a client via stopwatch commands, to compute an average estimate of network speeds. This clearly reads on the Claimed ***frame buffer scanning algorithm based on network performance***. Paragraph 0014 of the Collins reference discloses a system and method of adapting graphical data wherein a server agent processes graphical data addressed to the client. This is read as the Claimed ***data derived from an imaging system***.

Applicant argues that Collins fails to teach a serving station coupled to a medical diagnostic imaging system for controlling the imaging system as in Claims 31 and 40.

Examiner respectfully disagrees. Collins discloses a system and method of adapting graphical data and processing activity to changing network conditions wherein a server agent processes graphical data, read as the Claimed ***imaging***, addressed to the client, read as the Claimed ***imaging system***, agent at a first rate. By determining the network conditions of the network that couples the client and server agents, the server agent, said agent queued at the server, read as the Claimed ***serving station***,

can adjust its processing rate from the first rate to a second rate in response to a change in the network conditions.

Applicant argues that Collins fails to teach a scanner module configured to modify a scanning rate of the image data; a scanner module configured to modify a scanning rate of the image data; and network sensors in communication with the serving station as in Claim 42.

Examiner respectfully disagrees. Collins discloses a system and method of adapting graphical data and processing activity to changing network conditions wherein a server agent processes graphical data addressed to the client agent at a first rate. By determining the network conditions of the network that couples the client and server agents, read as the Claimed ***network sensors***, the server agent, read as the Claimed ***scanner module***, can adjust its processing rate, interpreted as the Claimed ***scanning rate***, from the first rate to a second rate in response to a change in the network conditions, interpreted as the Claimed ***modified scanning rate***.

Applicant argues that Collins, as modified by Tanenbaum, fails to teach a medical diagnostic imaging system for controlling the imaging system as in Claim 41.

Examiner respectfully disagrees. Collins discloses a system and method of adapting graphical data and processing activity to changing network conditions wherein a server agent processes graphical data, read as the Claimed ***imaging***, addressed to the client, read as the Claimed ***imaging system***, agent at a first rate. By determining the network conditions of the network that couples the client and server agents, the server agent, said agent queued at the server, read as the Claimed ***serving station***,

can adjust its processing rate from the first rate to a second rate in response to a change in the network conditions.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Mark D Fearer/

Conferees:

/J Bret Dennison/

Primary Examiner, Art Unit 2443

/Tonia LM Dollinger/

Supervisory Patent Examiner, Art Unit 2443